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### Before the

### FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of	)	
	)	
Advanced Television Systems and	)	MM Docket No. 87-268
Their Impact upon the Existing	)	
Television Broadcast Service	)	

To: The Commission

### SUPPLEMENT TO PETITION FOR RECONSIDERATION BY CALIFORNIA OREGON BROADCASTING, INC.

California Oregon Broadcasting, Inc. (COBI), by its attorneys, hereby supplements its pending petition for reconsideration of the Sixth Report and Order in this proceeding. .1

### A. Background

COBI is the licensee of full-service television stations KOTI-TV, Klamath Falls, OR, KOBI-TV, Medford OR, and KLSR-TV, Eugene, OR. On June 13, 1997, COBI filed a Petition for Reconsideration ("Petition") which requested changes in the Digital Television (DTV) pairings for the NTSC operations of KOTI, KOBI and KLSR. As noted in the Petition (at 4), pending the release of

<sup>1</sup> Sixth Report and Order, MM Docket No. 87-268, FCC 97-115, (rel. April 21, 1997).



OET Bulletin No. 69, COBI and others lacked the complete technical parameters to create optimum DTV channel pairings and to replicate NTSC service areas.

The Petition suggested, nevertheless, the need to pair KOTI and KOBI with VHF DTV channels. In particular, the Petition noted that DTV channel 11 might prove an effective alternative to the allotted channel 40 in Klamath Falls, while channel 7 might be a suitable alternative for allotted channel 15 in Medford. These changes could address the very limited (79.6%) service area replication of KOTI's NTSC channel 2, and the inadequate (86.2%) proposed replication of KOBI's NTSC channel 5 service area.

The Petition also addressed station KLSR's DTV channel 26 in terms of potential interference from adjacent DTV channel 25 in Eugene, OR, noting striking disparities in the stations' power levels and antenna height above average terrain -- channel 25 would have 5 times the power of KLSR and operate at a 600-foot antenna height advantage above average terrain. COBI urged that a new channel had to be found for KLSR and cited DTV channel 31 as a feasible substitute (Petition at 5).

### B. Supplemental Information - OET Bulletin No. 69

OET Bulletin No. 69 has been released, and it reflects technical parameters which form the basis for supplementing and better documenting COBI's Petition.

Attached is an Engineering Statement prepared by COBI's consultant, Lohnes & Culver. It provides supplemental material based on OET Bulletin No. 69, addressing the issue of COBI's DTV channel pairings with the benefit of the FCC's newly-released technical data.

Lohnes & Culver's study demonstrates that the use of DTV channel 13 for Klamath Falls, OR, in lieu of allotted channel 40, would be superior to channel 11, based on OET Bulletin No. 69 parameters. Substitution of DTV channel 13 for allotted channel 40 would improve service area coverage to 88.4%, compared to 79.6% as now allotted. There would essentially be no impact on channel 13 NTSC operations or on ATV interference estimates.

The study further evidences that use of DTV channel 7 in Medford would improve replication of the station's NTSC channel 5 service area to 92.6%, without materially impacting channel 7 operators in other cities.

For KLSR, Lohnes & Culver also has further studied DTV channel 31 (in lieu of channel 26) pairing with NTSC channel 34. Their calculations reflect an improvement (96.8% to 100%) in service area when Channel 31 is substituted for channel 26; no impact on population or area of NTSC stations or DTV pairings is effected by that change.

### C. Conclusion

The consequences of Lohnes & Culver's application of OET Bulletin No. 69 parameters to COBI's very extreme DTV allotment problems are important. The improved NTSC/ATV match is striking in percentage terms in all three COBI markets, and any impact on NTSC operators or DTV pairings is minimal or non-existent. Significantly, both KOTI in Klamath Falls and KOBI in Medford would be

able to continue service on the VHF band as needed to avoid potentially calamitous impacts on their DTV coverage, arising from the severe affects of the rugged terrain on UHF transmission paths.

COBI respectfully requests, therefore, that the Commission reconsider the DTV pairings for KOTI, KOBI and KLSR to substitute the DTV pairings described in the attached Lohnes & Culver study.

Respectfully submitted,

CALIFORNIA OREGON BROADCASTING, INC.

Peter D. O'Connell

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Its Attorneys

August 22, 1997

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### EXHIBIT E-S SUPPLEMENTAL ENGINEERING DATA RE: PETITION FOR RECONSIDERATION OF THE SIXTH REPORT AND ORDER IN MM DOCKET NO. 87-268

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Prepared by Lohnes and Culver Washington, D.C. August, 1997

# EXHIBIT E-S SUPPLEMENTAL ENGINEERING DATA RE: PETITION FOR RECONSIDERATION OF THE SIXTH REPORT AND ORDER IN MM DOCKET NO. 87-268

### **INTRODUCTION**

This statement was prepared on behalf of California Oregon Broadcasting, Inc. ("COBI"), licensee of television broadcast station KOBI Medford, OR, KOTI Klamath Falls, OR and KLSR Eugene, OR. COBI has a petition for reconsideration of the Sixth Report and Order in Docket No. 87-268 pending before the Commission. The Petition requests changes in the DTV pairings with the NTSC operations of KOTI, KOBI, and KLSR. The proposed changes were made prior to the release of OET Bulletin No. 69, that contains the technical parameters employed by the Commission in establishing the DTV Allotment Table. This exhibit provides supplemental engineering information in support of COBI's petition for reconsideration. The calculations contained in this Exhibit are based on the technical parameters described in OET Bulletin No. 69.

#### **DTV PAIRINGS**

KOBI and KOTI are licensed to operate on NTSC Channels 5 and 2 respectively. Appendix B of the Sixth Report and Order paired KOBI with DTV Channel 15 and KOTI with DTV Channel 40. COBI's petition for reconsideration describes the absolute necessity of maintaining the operations of KOBI and KOTI in the VHF band and suggests the pairing of DTV Channel 7 for KOBI and DTV Channel 11 for KOTI. Those recommendations were made without the benefit of the technical parameters outlined in OET Bulletin No. 69.

The office of Lohnes and Culver with the cooperation of the Commission's Office of Engineering and Technology and OET Bulletin No. 69 has established the computer

capability to conduct analyses of DTV pairings with authorized NTSC operations. The accuracy of the computer software has been confirmed by comparing the resulting output with service replication and interference evaluations contained in Appendix B of the Sixth Report and Order.

### **KOTI DTV PAIRING**

Figures 1 and 2 attached to this statement supply the results of an analysis of pairing DTV Channel 13 with NTSC Channel 2 at KOTI in Klamath Falls, in lieu of the Channel 40 pairing in the Sixth Report. Channel 11 was proposed in COBI's Petition for Reconsideration but Channel 13 is a better alternative based on the technical parameters described in OET Bulletin No. 69. As shown on Figure 1 the ATV/NTSC percent match improves from 54.5 to 65.8 in population and from 79.6 to 88.4 in area when KOTI is paired with DTV Channel 13 rather than Channel 40.

Figure 2 provides the results of an analysis of the NTSC stations and the DTV allotments that are affected by the proposed pairing of DTV Channel 13 with KOTI at Klamath Falls. The proposed change in the DTV pairing for KOTI (Channel 40 to Channel 13) has essentially no impact on the Channel 13 NTSC operations at Eureka, CA, Eugene, OR, La Grande, OR and the Channel 12 NTSC operation at Medford, OR. No additional population is affected by ATV interference from the proposed pairing of Channel 13 with KOTI and the additional land area affected is less than one percent in all cases.

#### **KOBI DTV PAIRING**

Figures 3 and 4 attached to this statement supply the results of an analysis of pairing DTV Channel 7 with NTSC Channel 5 at KOBI in Medford, OR in lieu of the Channel 15 pairing in the Sixth Report. As shown on Figure 3 the ATV/NTSC percent

match improves from 93.3 to 97.3 in population and from 86.2 to 92.6 in area when KOBI is paired with Channel 7 rather than Channel 15.

Figure 4 provides the results of an analysis of the NTSC stations and the DTV allotments that are affected by the proposed pairing of DTV Channel 7 with KOBI at Medford, OR. The proposed change in the DTV pairing for KOBI (Channel 15 to Channel 7) has essentially no impact on the NTSC operations on Channel 7 at Redding, CA and Channel 8 at Medford, OR. In both cases the additional population affected by ATV interference is less than one percent of the population within the noise limited contour that is not affected by terrain losses. The proposed change does have a relatively minor impact on the NTSC Channel 7 operation at Corvallis, OR resulting in an additional loss in population of approximately two percent of the total within the noise limited contour that is not affected by terrain losses.

#### KLSR DTV PAIRING

For KLSR COBI's petition for reconsideration proposed a change in the DTV pairing with the NTSC operation of Channel 34 at Eugene, OR. It was suggested that DTV Channel 31 be paired with NTSC Channel 34 at KLSR in lieu of the Channel 26 pairing shown in the Sixth Report and Order. The pairing of Channel 31 rather than Channel 26 will eliminate the potential for interference between the ATV operation of KLSR on Channel 26 and the ATV operation of KVAL-TV in Eugene, OR on Channel 25 as proposed in the Sixth Report and Order.

Figures 5 and 6 attached to this statement provide the results of an analysis of pairing DTV Channel 31 with NTSC Channel 34 at KLSR in Eugene, OR in lieu of the Channel 26 pairing in the Sixth Report. As shown on Figure 5 the ATV/NTSC percent match improves from 98.1 to 100 in population and from 96.8 to 100 in area when KLSR is paired with DTV Channel 31 rather than Channel 26.

Figure 6 provides the results of an analysis of the NTSC stations and the DTV allotments that are affected by the proposed pairing of DTV Channel 31 with KLSR at Eugene, OR. The proposed change in the DTV pairing for KLSR (Channel 26 to Channel 31) as no impact on population or area within the noise limited contour of any NTSC operation or any DTV pairing shown in the Sixth Report.

### CONCLUSION

The changes in DTV pairings for KOBI, KOTI and KLSR proposed herein improve the ATV/NTSC percent match in all three cases and have a very minimal impact on any NTSC operation or DTV allotment. In the case of KOBI, Medford, and KOTI Klamath Falls, the proposed change in DTV pairing will enable the station's to continue operation in the VHF band that is critical to both stations ability to provide quality service to their respective markets. As described in COBI's pending petition for reconsideration the nature of the Medford - Klamath Falls area is such that a change from VHF to UHF transmission will significantly degrade the service in those markets.

Accordingly, we urge the Commission to reconsider the DTV pairings for KOBI Medford, KOTI Klamath Falls and KLSR Eugene and substitute the DTV pairings proposed herein.

Respectfully submitted, LOHNES AND CULVER

Frederick D. Veihmeyer

August, 1997

### FIGURE 1 COMPARISON OF DTV PAIRINGS KOTI WITH DTV CH. 40 KOTI WITH DTV CH. 13

### **SIXTH REPORT**

Analysis of: 2N OR KLAMATH FALLS		
<b>.</b>	POPULATION	AREA (sq km)
within Noise Limited Contour	259367	52658.8
not affected by terrain losses	162768	45371.1
lost to NTSC IX	4238	848.4
lost to additional IX by ATV	0	0.0
lost to all IX	4238	848.4
Analysis of: 40A OR KLAMATH FALLS		
HĀAT 671.0 m, ATV ERP 1000.0 }		
		AREA (sq km)
within Noise Limited Contour		
not affected by terrain losses	86443	
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	54.5	79.6

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### **PROPOSED**

Analysis of: 2N OR KLAMATH FALLS		
•	POPULATION	AREA (sq km)
within Noise Limited Contour	259367	52658.8
not affected by terrain losses		
lost to NTSC IX	4238	848.4
lost to additional IX by ATV	0	0.0
lost to all IX	4238	848.4
Analysis of: 13A OR KLAMATH FALLS		
HAAT 671.0 m, ATV ERP 43.3 }		
	POPULATION	AREA (sq km)
within Noise Limited Contour	259367	52658.8
not affected by terrain losses		
lost to NTSC IX	364	
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	364	148.1
percent match ATV/NTSC	65.8	88.4

### FIGURE 2 ANALYSIS OF NTSC/ATV STATIONS AFFECTED BY CHANNEL 13 DTV PAIRING FOR KOTI

### KOTI PAIRED WITH CH. 13 (PROPOSED)

### KOTI PAIRED WITH CH. 40 (SIXTH REPORT)

Analysis of: 13N CA EUREKA	Analysis of: 13N CA EUREKA
Analysis of: 13N CA EUREKA  within Noise Limited Contour not affected by terrain losses lost to NTSC IX lost to additional IX by ATV lost to all IX  Analysis of: 11A CA EUREKA HAAT 515.0 m, ATV ERP 13.6 kW, direction within Noise Limited Contour not affected by terrain losses lost to NTSC IX lost to additional IX by ATV lost to all IX  Analysis of: 11A CA EUREKA HAAT 515.0 m, ATV ERP 13.6 kW, direction within Noise Limited Contour not affected by terrain losses lost to NTSC IX lost to additional IX by ATV lost to additional IX by ATV lost to ATV IX only lost to all IX lost to additional IX percent match ATV/NTSC lost lost lost lost lost lost lost lost	POPULATION AREA (sq km)
within Noise Limited Contour 130989 35996.6	within Noise Limited Contour 130989 35996.6
lost to NTSC IX	lost to NTSC IX
lost to additional IX by ATV 0 72.7	lost to additional IX by ATV 0 0.0
lost to all IX 0 84.8	lost to all IX 0 12.1
Analysis of: 11A CA EUREKA	Analysis of: 11A CA EUREKA
HAAT 515.0 m, AIV ERP 13.6 kW, direction 2/0.0 degrees T	POPULATION AREA (so km)
within Noise Limited Contour 130989 35996.6	within Noise Limited Contour 130989 35996.6
not affected by terrain losses 121098 30373.9	not affected by terrain losses 121098 30373.9
lost to NTSC IX 0 0.0	lost to NTSC IX 0 0.0
lost to additional IX by ATV 0 0.0	lost to additional IX by ATV 0 U.U
lost to all TY 0 0.0	lost to all IX
percent match ATV/NTSC 100.0 100.0	percent match ATV/NTSC 100.0 100.0
•••••	<b>,</b>
Analysis of: 13N OR EUGENE	Analysis of: 13N OR EUGENE
POPULATION AREA (sq km)	POPULATION AREA (sq km)
within Noise Limited Contour 772281 36367.3	within Noise Limited Contour 772281 36367.3
not affected by terrain losses 549683 25974.3	not affected by terrain losses 549683 25974.3
lost to Midd IA 30436 893.5	lost to NISC IX 30436 893.5
lost to all IX	lost to additional IX by AIV 0 0.00
Analysis of: 25A OR EUGENE	Analysis of: 25A OR EUGENE
HAAT 451.0 m, ATV ERP 602.7 kW, direction 0.0 degrees T	HAAT 451.0 m, ATV ERP 602.7 kW, direction 0.0 degrees T
POPULATION AREA (sq km)	POPULATION AREA (sq km)
within Noise Limited Contour 772281 36367.3	within Noise Limited Contour 772281 36367.3
not affected by terrain losses 663365 2/945.6	not directed by terrain losses 663365 2/345.6
lost to additional IX by ATV 298 52 1	lost to additional IX by ATV 298 52.1
lost to ATV IX only 298 52.1	lost to ATV IX only 298 52.1
lost to all IX 298 56.1	lost to all IX 298 56.1
percent match ATV/NTSC 100.0 99.9	percent match ATV/NTSC 100.0 99.9
<b>沙南军 医医胱液体 不再在事 医张耳耳耳动脉 有效 法未知 医格特奇氏 医神经性 医神经性 医耳及性 经收益 医耳耳样 电动力 电动力 医动物 化二甲基苯甲基苯甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲</b>	医动脉性 医克耳氏征 医克里氏 医克里氏 医克里氏 医克里氏 医克里氏 医克里氏 医克里氏 医克里氏
Analysis of: 13N OR EUGENE  within Noise Limited Contour not affected by terrain losses 549683 25974.3 36367.3 30436 893.5 10st to aNTSC IX 30436 893.5 1017.7 Analysis of: 25A OR EUGENE  HAAT 451.0 m, ATV ERP 602.7 kW, direction population within Noise Limited Contour not affected by terrain losses 663365 27945.6 10st to additional IX by ATV 298 52.1 10st to additional IX by ATV 298 52.1 10st to additional IX by ATV 298 56.1 percent match ATV/NTSC 100.0 99.9	Analysis of 13N OR LA GRANDE
Analysis of: 13N OR LA GRANDE POPULATION AREA (sg km)	Analysis of: 13N OR LA GRANDE POPULATION AREA (sq km)
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within Noise Limited Contour 76268 22247.8 not affected by terrain losses 39140 14541.7 lost to NTSC IX 0 24.1 lost to additional IX by ATV 0 0.0 lost to all IX 0 24.1 Analysis of: 5A OR LA GRANDE HAAT 787.0 m, ATV ERP 1.0 kW, direction 336.0 degrees T POPULATION AREA (sq km) within Noise Limited Contour 76268 22247.8 not affected by terrain losses 75640 21361.3 lost to NTSC IX 0 0.0 lost to additional IX by ATV 0 0.0 lost to additional IX by ATV 0 0.0 lost to additional IX by ATV 0 0.0 lost to all IX only 0 0.0 lost to all IX percent match.ATV/NTSC 100.0 100.0	within Noise Limited Contour 76268 22247.8 not affected by terrain losses 39140 14541.7 lost to NTSC IX 0 24.1 lost to additional IX by ATV 0 0.0.0 lost to all IX 0 0 24.1 Analysis of: 5A OR LA GRANDE HAAT 787.0 m, ATV ERP 1.0 kW, direction POPULATION AREA (sq km) within Noise Limited Contour 76268 22247.8 not affected by terrain losses 75640 21361.3 lost to NTSC IX 0 0.0 lost to additional IX by ATV 0 0.0 lost to ATV IX only 0 0.0 percent match ATV/NTSC 100.0

## FIGURE 3 COMPARISON OF DTV PAIRINGS KOBI WITH DTV CH. 15 KOBI WITH DTV CH. 7

### SIXTH REPORT

Analysis of: 5N OR MEDFORD			
	PULATION	AREA (sq km)	
within Noise Limited Contour		53622.0	
not affected by terrain losses	370164	44968.8	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	0	0.0	
lost to all IX	0	0.0	
Analysis of: 15A OR MEDFORD			
HĀAT 823.0 m, ATV ERP 635.9 kW,	direction	28.0 degrees	Т,
	PULATION		
within Noise Limited Contour	456310	53622.0	
not affected by terrain losses	346956	38847.4	
lost to NTSC IX	882	44.1	
lost to additional IX by ATV	287	24.0	
lost to ATV IX only	1169	68.1	
lost to all IX	1169	68.1	
percent match ATV/NTSC	93.3	86.2	

### PROPOSED

Analysis of: 5N OR MEDFORD			
-		AREA (sq km)	
within Noise Limited Contour		53622.0	
not affected by terrain losses	370164		
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	0	0.0	
lost to all IX	0	0.0	
Analysis of: 7A OR MEDFORD			
HAAT 823.0 m, ATV ERP 33.3 l			Τ,
	POPULATION		
	456310		
not affected by terrain losses			
lost to NTSC IX	2172		
lost to additional IX by ATV	0	0.0	
lost to ATV IX only	0	0.0	
lost to all IX	2172	524.8	
percent match ATV/NTSC	97.3	92.6	

### FIGURE 4 ANALYSIS OF NTSC/ATV STATIONS AFFECTED BY CHANNEL 7 DTV PAIRING FOR KOBI

### **KOBI PAIRED WITH CH. 7 (PROPOSED)**

### KOBI PAIRED WITH CH. 15 (SIXTH REPORT)

	Analysis of TV Ch propries
Analysis of: 7N CA REDDING	Analysis of: 7N CA REDDING
POPULATION AREA (sq km) within Noise Limited Contour 373778 47717.0 not affected by terrain losses 326552 35609.8 lost to NTSC IX 5474 411.8 lost to additional IX by ATV 70 355.9 lost to all IX 5544 767.7 Analysis of: 14A CA REDDING HAAT 1103.0 m. ATV ERP 159.1 kW direction 235.0 degrees T	POPULATION AREA (sq km)
within Noise Limited Contour 373778 47717.0	within Noise Limited Contour 373778 47717.0
not affected by terrain losses 326552 35609.8	not affected by terrain losses 326552 35609.8
lost to NTSC IX 5474 411.8	lost to NTSC IX 5474 411.8 lost to additional IX by ATV 0 0.0
lost to additional IX by ATV 70 355.9	lost to additional IX by ATV 0 0.0
lost to all IX 5544 767.7	lost to all IX 5474 411.8
Analysis of: 14A CA REDDING	Analysis of: 14A CA REDDING
HAAT 1103.0 m, ATV ERP 159.1 kW, direction 225.0 degrees T,	HAAT 1103.0 m, ATV ERP 159.1 kW, direction 225.0 degrees T,
POPULATION AREA (sq.km)	POPULATION AREA (sg km)
within Noise Limited Contour 373778 47717 0	within Noise Limited Contour 373778 47717.0
not affected by terrain losses 326805 35722 0	not affected by terrain losses 326805 35733.8
lost to NTSC IX	lost to NTSC IX
lost to additional IV by AMV	logt to additional TV by ATV 0 00
lost to AMI IV only	lost to ATV IV only
lost to all IV	logi to all IV
105t to all IA	TOSC LO ALL IA
HAAT 1103.0 m, ATV ERP 159.1 kW, direction 225.0 degrees T, POPULATION AREA (sq km)  within Noise Limited Contour 373778 47717.0 not affected by terrain losses 326805 35733.8 lost to NTSC IX 0 16.0 lost to additional IX by ATV 0 0.0 lost to ATV IX only 0 0.0 lost to ATV IX only 0 0.0 lost to all IX 0 16.0 percent match ATV/NTSC 99.8 99.4	percent match AIV/NISC 99.8 99.4
***************************************	***************************************
Analysis of: 7N OR CORVALLIS	Analysis of: 7N OR CORVALLIS
DODAM PORTON ADDA ( )	DODITIATION AREA (ag lem)
within Noise Limited Contour 1347029 7229	within Noise Limited Contour 1347029 31398 9
not affected by terrain losses 1021912 25000 1	not affected by terrain losses 1031912 25050 1
lost to NTSC IV	logt to NTCC IV 192426 1352 4
within Noise Limited Contour 1347029 31398.9 not affected by terrain losses 1031912 25050.1 lost to NTSC IX 183436 1352.4 lost to additional IX by ATV 24122 1480.9 lost to all IX 207558 2833.3 Analysis of: 39A OR CORVALLIS	within Noise Limited Contour 1347029 31398.9 not affected by terrain losses 1031912 25050.1 lost to NTSC IX 183436 1352.4 lost to additional IX by ATV 0 0.0 lost to all IX 183436 1352.4 Analysis of: 39A OR CORVALLIS HAAT 375.0 m. ATV ERP 1000.0 kW. Cap Add 1.3 dB 270.0 deg T.
lost to additional IX by AIV 24122 1480.9	lost to all IV 102426 1252 4
Analysis of 32A OR CORVALITO	helical IA 103436 1352.4
Analysis of: 39A OR CORVALLIS	ANALYSIS OI: 39A OR CORVALDIS
HAAT 375.0 m, ATV ERP 1000.0 kW, Cap Adj 1.3 dB 270.0 deg T,	HAAT 375.0 m, ATV ERP 1000.0 kW, Cap Adj 1.3 dB 270.0 deg T,
POPULATION AREA (sq km)	POPULATION AREA (sq km)
within Noise Limited Contour 1347029 31398.9	within Noise Limited Contour 1347029 31398.9
not affected by terrain losses 1078464 25130.3	not affected by terrain losses 1078464 25130.3
lost to NTSC 1x 6 8.0	lost to NTSC IX 6 8.0
lost to additional IX by ATV 111698 240.8	lost to additional IX by ATV 111698 240.8
lost to ATV IX only 111698 240.8	lost to ATV IX only 111698 240.8
lost to all IX 111704 248.8	lost to all IX 111704 248.8
HAAT 375.0 m, ATV ERP 1000.0 kW, Cap Adj 1.3 dB 270.0 deg T, POPULATION AREA (sq km)  within Noise Limited Contour 1347029 31398.9  not affected by terrain losses 1078464 25130.3  lost to NTSC IX 6 8.0  lost to additional IX by ATV 111698 240.8  lost to ATV IX only 111698 240.8  lost to all IX 11704 248.8  percent match ATV/NTSC 99.6 97.8	percent match ATV/NTSC 99.6 97.8
Analysis of: 8N OR MEDFORD	Analysis of: 8N OR MEDFORD
POPULATION AREA (sq km)	POPULATION AREA (sg km)
within Noise Limited Contour 413490 47141,1	within Noise Limited Contour 413490 47141.1
not affected by terrain losses 325312 33358.6 lost to NTSC IX 2884 548.9 lost to additional IX by ATV 207 80.1 lost to all IX 3091 629.0 Analysis of: 42A OR MEDFORD	not affected by terrain losses 325312 33358.6
lost to NTSC IX 2884 548.9	lost to NTSC IX 2884 548.9
lost to additional IX by ATV 207 80 1	lost to additional IX by ATV 0 0.0
lost to all IX 3091 629 0	lost to all IX 2884 548.9
Analysis of: 42A OR MEDFORD	Analysis of: 42% OR MEDEOPD
HAAT 818.0 m, ATV ERP 526.8 kW, direction 71.0 degrees T,	HAAT 818.0,m, ATV ERP 526.8 kW, direction 71.0 degrees T,
POPILATION APEN (22 Let)	DODIN ATOM APPEN T,
within Noise Limited Contour 413490 47147	POPULATION AREA (sq km)
within Noise Limited Contour 413490 47141.1 not affected by terrain losses 310311 32356.9 lost to NTSC IX 1751 208.3 lost to additional IX by ATV 0 0.0 lost to ATV IX only 0 0.0 lost to all IX 1751 208.3 percent match ATV/NTSC 94.6 95.9	within Noise Limited Contour 413490 47141.1 not affected by terrain losses 310311 32356.9 lost to NTSC IX 1751 208.3 lost to additional IX by ATV 0 0.0 lost to ATV IX only 0 0.0 lost to all IX 1751 208.3 percent match ATV/NTSC 94.6 95.9
lost to NTSC IX	lock to MECC IV
lost to additional TX by ATV	lost to wide in a 1/51 208.3
lost to ATV IX only	lost to additional IX by ATV 0 0.0
lost to all TX	lost to ATV IX only 0 0.0
Dercent match ATV/NTSC 208.3	10SC TO ALL 1X 1751 208.3
94.6 95.9	percent match ATV/NTSC 94.6 95.9

# FIGURE 5 COMPARISON OF DTV PAIRINGS KLSR WITH DTV CH. 26 KLSR WITH DTV CH. 31

### **SIXTH REPORT**

Analysis of: 34N OR EUGENE			
	OPULATION	AREA (sq km)	
within Noise Limited Contour	425152	11584.8	
not affected by terrain losses	379599	8791.6	
lost to NTSC IX	120	8.0	
lost to additional IX by ATV	563	32.0	
lost to all IX	683	40.0	
Analysis of: 26A OR EUGENE			
HAAT 259.0 m, ATV ERP 83.9 kW			T
		AREA (sq km)	
within Noise Limited Contour	425152	11584.8	
not affected by terrain losses	392692	9219.8	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	7202		
lost to ATV IX only	7202		
lost to all IX	7202		
percent match ATV/NTSC	98.1	96.8	

### **PROPOSED**

Analysis of: 34N OR EUGENE			
	POPULATION	AREA (sq km)	
within Noise Limited Contour		11584.8	
not affected by terrain losses	379599	8791.6	
lost to NTSC IX	120	8.0	
lost to additional IX by ATV	563	32.0	
lost to all IX	683	40.0	
Analysis of: 31A OR EUGENE			
HAAT 259.0 m, ATV ERP 93.4 )	kW, direction	0.0 degrees	T
	POPULATION	AREA (sq km)	
within Noise Limited Contour	425152	11584.8	
not affected by terrain losses	387599	9163.8	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	67	8.0	
lost to ATV IX only	67	8.0	
lost to all IX	67	8.0	
percent match ATV/NTSC	100.0	100.0	

## FIGURE 6 ANALYSIS OF NTSC/ATV STATIONS AFFECTED BY CHANNEL 31 DTV PAIRING FOR KLSR

### KLSR PAIRED WITH CH. 26 (SIXTH REPORT)

### KLSR PAIRED WITH CH. 31 (PROPOSED)

Analysis of: 23N OR COOS BAY	Analysis of: 23N OR COOS BAY
POPULATION AREA (sq km)	within Noise Limited Contour 56291 3123.6 not affected by terrain losses 51851 2670.5 lost to NTSC IX 0 0.0 lost to additional IX by ATV 133 20.0 lost to all IX 133 20.0 Analysis of: 22A OR COOS BAY
within Noise Limited Contour 56291 3123.6	within Noise Limited Contour 56291 3123.6
not affected by terrain losses 51851 2670.5	not affected by terrain losses 51851 2670.5
lost to NTSC IX 0 0.0	lost to NTSC IX 0 0.0
within Noise Limited Contour 56291 3123.6 not affected by terrain losses 51851 2670.5 lost to NTSC IX 0 0.0 lost to additional IX by ATV 133 20.0 lost to all IX 133 20.0 Analysis of: 22A OR COOS BAY HAAT 190.0 m. ATV ERP 50.0 kW. direction 260 0 degrees T.	lost to additional IX by ATV 133 20.0
lost to all IX 133 20.0	lost to all IX 133 20.0 Analysis of: 22A OR COOS BAY
Analysis of: 22A OR COOS BAY	
HAAT 190.0 m, ATV ERP 50.0 kW, direction 260.0 degrees T,	
DODIT AUTOM ADDA ( 1)	DODITIATION ADDA (combm)
within Noise Limited Contour 56291 3123.6	within Noise Limited Contour 56291 3123.6
not affected by terrain losses 56159 3083.5	not affected by terrain losses 56159 3083.5
lost to NTSC IX 0 0.0	lost to NTSC IX 0 0.0
lost to additional IX by ATV 0 4.0	lost to additional IX by ATV 0 4.0
lost to ATV IX only 0 4.0	lost to ATV IX only 0 4.0
lost to all IX	lost to all IX 0 4.0
percent match ATV/NTSC 100 0 100 0	percent match ATV/NTSC 100.0 100.0
within Noise Limited Contour 56291 3123.6 not affected by terrain losses 56159 3083.5 lost to NTSC IX 0 0.0 lost to additional IX by ATV 0 4.0 lost to ATV IX only 0 4.0 lost to all IX 0 4.0 percent match ATV/NTSC 100.0 100.0	percone material, 1220
Analysis of: 28N OR EUGENE	Analysis of: 28N OR EUGENE
POPULATION AREA (sq km)	POPULATION AREA (aq km)
Analysis of: 28N OR EUGENE  POPULATION AREA (sq km)  within Noise Limited Contour 371958 10372.6  not affected by terrain losses 332974 7829.5  lost to NTSC IX 0 0.0  lost to additional IX by ATV 780 120.1  lost to all IX 780 120.1  Analysis of: 29A OR EUGENE  HAAT 276.0 m, ATV ERP 50.0 kW, direction 0.0 degrees T, POPULATION AREA (sq km)	within Noise Limited Contour 371958 10372.6
not affected by terrain losses 332974 7829.5	not affected by terrain losses 332974 7829.5
lost to NTSC IX 0 0.0	lost to NTSC IX 0 0.0
lost to additional IX by ATV 780 120.1	lost to additional IX by ATV 780 120.1
lost to all IX 780 120.1	lost to all IX 780 120.1
Analysis of: 29A OR EUGENE	Analysis of: 29A OR EUGENE
HĀAT 276.0 m, ATV ERP 50.0 kW, direction 0.0 degrees T,	HAAT 276.0 m, ATV ERP 50.0 kW, direction 0.0 degrees T
POPULATION AREA (sg km)	POPULATION AREA (sq km)
within Noise Limited Contour 371958 10372.6	within Noise Limited Contour 371958 10372.6
not affected by terrain losses 343049 8622.4	not affected by terrain losses 343049 8622.4
lost to NTSC IX 0 0.0	lost to NTSC IX 0 0.0
lost to additional IX by ATV 0 0.0	lost to additional IX by ATV 0 0.0
lost to ATV IX only 0 0.0	lost to ATV IX only 0 0.0
lost to all IX 0 0.0	lost to all IX 0 0.0
within Noise Limited Contour 371958 10372.6 not affected by terrain losses 343049 8622.4 lost to NTSC IX 0 0.0 lost to additional IX by ATV 0 0.0 lost to ATV IX only 0 0.0 lost to all IX 0 0.0 percent match ATV/NTSC 100.0	percent match ATV/NTSC 100.0 100.0
2	•
	Analysis of: 26N OR MEDFORD  POPULATION AREA (sq km)  within Noise Limited Contour 203567 9157.3  not affected by terrain losses 150931 5802.4  lost to NTSC IX 0 8.1  lost to additional IX by ATV 0 0.0  lost to all IX 0 8.1  Analysis of: 27A OR MEDFORD  HAAT 428.0 m, ATV ERP 50.0 kW, direction 300.0 degrees T  POPULATION AREA (sq km)
Analysis of: 26N OR MEDFORD	Analysis of: 26N OR MEDFORD
POPULATION AREA (sq km)	POPULATION AREA (sq km)
within Noise Limited Contour 203567 9157.3	within Noise Limited Contour 203567 9157.3
not affected by terrain losses 150931 5802.4	not affected by terrain losses 150931 5802.4
lost to NTSC IX 0 8.1	lost to NTSC IX 0 8.1
lost to additional IX by ATV 0 0.0	lost to additional IX by ATV 0 0.0
lost to all IX 0 8.1	lost to all IX 0 8.1
Analysis of: 27A OR MEDFORD	Analysis of: 27A OR MEDFORD
HĀAT 428.0 m, ATV ERP 50.0 kW, direction 300.0 degrees T	HAAT 428.0 m, ATV ERP 50.0 kW, direction 300.0 degrees T
POPULATION AREA (sg km)	POPULATION AREA (sq km)
within Noise Limited Contour 203567 9157.3	within Noise Limited Contour 203567 9157.3
within Noise Limited Contour 203567 9157.3 not affected by terrain losses 160900 6411.3 lost to NTSC IX 155 4.0 lost to additional IX by ATV 0 0.0 lost to ATV IX only 0 0.0 lost to all IX 155 4.0 percent match ATV/NTSC 100.0 100.0	not affected by terrain losses 160900 6411.3
lost to NTSC IX 155 4 0	lost to NTSC IX 155 4.0
lost to additional IX by ATV	lost to additional IX by ATV 0 0.0
lost to ATV IX only	lost to ATV IX only 0 0.0
lost to all TX	lost to all IX 155 4.0
percent match ATV/NTSC 100 0 100 0	percent match ATV/NTSC 100.0 100.0
percent match Alvivise 100.0	percent materials 100.0

### FIGURE 6 (CONT'D)

KLSR PAIRED WITH CH. 26 (SIXTH REPORT)	KLSR PAIRED WITH CH. 31 (PROPOSED)
Analysis of: 22N OR SALEM	Analysis of: 22N OR SALEM
Analysis of: 22N OR SALEM  within Noise Limited Contour 1906829 20912.7  not affected by terrain losses 1807714 17660.7  lost to NTSC IX 402526 865.3  lost to additional IX by ATV 0 0.0  lost to all IX 402526 865.3  Analysis of: 20A OR SALEM HAAT 363.0 m, ATV ERP 52.3 kW, direction 270.0 degrees T, POPULATION AREA (sg km)	POPULATION AREA (sq km) within Noise Limited Contour 1906829 20912.7
not affected by terrain losses 1807714 17660.7 lost to NTSC IX 402526 865.3	not affected by terrain losses 1807714 17660.7 lost to NTSC IX 402526 865.3
lost to additional IX by ATV 0 0.0	lost to additional IX by ATV 0 0.0 lost to all IX 402526 865.3
Analysis of: 20A OR SALEM  HAAT 363 0 m ATV ERP 52 3 kW direction 270 0 degrees T	Analysis of: 20A OR SALEM HAAT 363.0 m, ATV ERP 52.3 kW, direction 270.0 degrees T,
POPULATION AREA (sq km)	POPULATION AREA (sq km) within Noise Limited Contour 1906829 20912 7
### HAAT 363.0 m, ATV ERP 52.3 kW, direction 270.0 degrees T, POPULATION AREA (sq km)  within Noise Limited Contour 1906829 20912.7  not affected by terrain losses 1878870 18393.2  lost to NTSC IX 50578 221.4  lost to additional IX by ATV 16 8.0  lost to ATV IX only 16537 100.6  lost to all IX 50594 229.4  percent match ATV/NTSC 100.0 100.0	not affected by terrain losses 1878870 18393.2
lost to MISC IA 505/6 221.4	lost to additional TX by ATV 16 8.0
lost to ATV IX only 16537 100.6	lost to ATV IX only 16537 100.6
lost to all IX 50594 229.4	lost to all IX 50594 229.4
percent match ATV/NTSC 100.0 100.0	percent match ATV/NTSC 100.0 100.0
***************************************	
Analysis of: 13N OR EUGENE  POPULATION AREA (sq km)  within Noise Limited Contour 772281 36367.3  not affected by terrain losses 549683 25974.3  lost to NTSC IX 30436 893.5  lost to additional IX by ATV 0 0.0  lost to all IX 30436 893.5  Analysis of: 25A OR EUGENE  HAAT 451.0 m, ATV ERP 602.7 kW, direction 0.0 degrees T,	Analysis of: 13N OR EUGENE POPULATION AREA (sq km)
within Noise Limited Contour 772281 36367.3	within Noise Limited Contour 772281 36367.3
not affected by terrain losses 549683 25974.3	not affected by terrain losses 549683 25974.3
lost to MTSC IX 30436 893.5	lost to NISC IA 30436 633.5
lost to all IX 30436 893.5	lost to all IX 30436 893.5
Analysis of: 25A OR EUGENE	Analysis of: 25A OR EUGENE
HAAT 451.0 m, ATV ERP 602.7 kW, direction 0.0 degrees T,	HAAT 451.0 m, ATV ERP 602.7 kW, direction 0.0 degrees T,
within Noise Limited Contour 772281 36367 3	POPULATION AREA (sq km) within Noise Limited Contour 772281 363673
not affected by terrain losses 663365 27945.6	not affected by terrain losses 663365 27945.6
lost to NTSC IX 0 4.0	lost to NTSC IX 0 4.0
lost to additional IX by ATV 298 52.1	lost to additional IX by ATV 298 52.1
lost to ATV IX only 298 52.1	lost to ATV IX only 298 52.1
percent match ATV/NTSC 100.0 99.9	percent match ATV/NTSC 100.0 99.9
HAAT 451.0 m, ATV ERP 602.7 kW, direction 0.0 degrees T, POPULATION AREA (sq km) within Noise Limited Contour 772281 36367.3 not affected by terrain losses 663365 27945.6 lost to NTSC IX 0 4.0 lost to additional IX by ATV 298 52.1 lost to ATV IX only 298 52.1 lost to all IX 298 56.1 percent match ATV/NTSC 100.0 99.9	
Analysis of: 31N OR KLAMATH FALLS	Analysis of: 31N OR KLAMATH FALLS POPULATION AREA (sq km)
Analysis of: 31N OR KLAMATH FALLS  POPULATION AREA (sq km)  within Noise Limited Contour 55289 5882.6  not affected by terrain losses 54267 4554.9  lost to NTSC IX 0 0.0  lost to additional IX by ATV 0 0.0  lost to all IX 0 0.0  Analysis of: 29A OR KLAMATH FALLS	within Noise Limited Contour 55289 5882.6
not affected by terrain losses 54267 4554.9	not affected by terrain losses 54267 4554.9
lost to NTSC IX 0 0.0	lost to NTSC IX 0 0.0
lost to additional IX by ATV 0 0.0	lost to additional IX by ATV 0 0.0
lost to all IX 0 0.0	LOST TO ALL IX
Analysis of: 29A OR KLAMATH FALLS	HAAT 691.0 m. ATV ERP 50.0 kW. direction 353.0 degrees T.
POPULATION AREA (sq km)	POPULATION AREA (sq km)
within Noise Limited Contour 55289 5882.6	within Noise Limited Contour 55289 5882.6
not affected by terrain losses 55123 5478.7	not affected by terrain 1055es 55123 5478.7
lost to additional IX by ATV 0 0.0	lost to additional IX by ATV 0 0.0
lost to ATV IX only 0 0.0	lost to ATV IX only 0 0.0
lost to all IX 0 0.0	lost to all IX 0 0.0
percent match ATV/NTSC 100.0 100.0	lost to all IX 0 0.0  Analysis of: 29A OR KLAMATH FALLS  HAAT 691.0 m, ATV ERP 50.0 kW, direction 353.0 degrees T,  POPULATION AREA (sq km)  within Noise Limited Contour 55289 5882.6  not affected by terrain losses 55123 5478.7  lost to NTSC IX 0 0.0  lost to additional IX by ATV 0 0.0  lost to ATV IX only 0 0.0  lost to all IX 0 0.0  percent match ATV/NTSC 100.0 100.0

### FIGURE 6 (CONT'D)

### KLSR PAIRED WITH CH. 26 (SIXTH REPORT) KLSR PAIRED WITH CH. 31 (PROPOSED)

Analysis of: 32N OR SALEM  within Noise Limited Contour 1958893 29504.3 23258.5 lost to NTSC IX 70590 189.4 lost to additional IX by ATV 22325 88.6 lost to all IX 92915 278.0  Analysis of: 33A OR SALEM HAAT 544.0 m, ATV ERP 245.8 kW, direction population within Noise Limited Contour not affected by terrain losses lost to NTSC IX 478 80.6 lost to additional IX by ATV 207 16.1 lost to ATV IX only 207 16.1 lost to all IX 685 96.7 percent match ATV/NTSC 100.0 1958893 29504.3	Analysis of: 32N OR SALEM  within Noise Limited Contour 1958893 29504.3 not affected by terrain losses 1897347 23258.5 lost to NTSC IX 70590 189.4 lost to additional IX by ATV 22325 88.6 lost to all IX 92915 278.0  Analysis of: 33A OR SALEM HAAT 544.0 m, ATV ERP 245.8 kW, direction POPULATION AREA (sq km) within Noise Limited Contour 1958893 29504.3 not affected by terrain losses 1923080 24394.8 lost to NTSC IX 478 80.6 lost to additional IX by ATV 207 16.1 lost to ATV IX only 207 16.1 lost to all IX 685 96.7 percent match ATV/NTSC 100.0
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Analysis of: 31N WA RICHLAND  within Noise Limited Contour 161850 7058.6 not affected by terrain losses 157995 6482.5 lost to NTSC IX 0 0.0 lost to additional IX by ATV 0 0.0 lost to all IX 0 0.0 Analysis of: 30A WA RICHLAND HAAT 370.0 m, ATV ERP 50.0 kW, direction POPULATION AREA (sq km) within Noise Limited Contour 161850 7058.6 not affected by terrain losses 161593 6994.2 lost to NTSC IX 0 0.0 lost to additional IX by ATV 0 0.0 lost to ATV IX only 0 0.0 lost to all IX 0 0.0 lost to all IX 0 0.0 percent match ATV/NTSC 100.0 100.0	Analysis of: 31N WA RICHLAND  POPULATION AREA (sq km)  within Noise Limited Contour 161850 7058.6  not affected by terrain losses 157995 6482.5  lost to NTSC IX 0 0.0  lost to additional IX by ATV 0 0.0  lost to additional IX by ATV 0 0.0  Analysis of: 30A WA RICHLAND  HAAT 370.0 m, ATV ERP 50.0 kW, direction 20.0 degrees T  POPULATION AREA (sq km)
Analysis of: 7N OR CORVALLIS    POPULATION   AREA (sq km)	Analysis of: 7N OR CORVALLIS  within Noise Limited Contour 1347029 31398.9 not affected by terrain losses 1031912 25050.1 lost to NTSC IX 183436 1352.4 lost to additional IX by ATV 0 0.0 lost to all IX 183436 1352.4  Analysis of: 39A OR CORVALLIS HAAT 375.0 m, ATV ERP 1000.0 kW, Cap Adj 1.3 dB 270.0 deg T  POPULATION AREA (sq km) within Noise Limited Contour 1347029 31398.9 not affected by terrain losses 1078464 25130.3 lost to NTSC IX 6 8.0 lost to additional IX by ATV 111698 240.8 lost to ATV IX only 111698 240.8 lost to all IX 11704 248.8 percent match ATV/NTSC 99.6 97.8